



New Features in and Important Notes About Cisco ASR 1000 Series Aggregation Services Routers Release 3.8S

This chapter provides information about the new features introduced in Cisco ASR 1000 Series Aggregation Services Routers Release 3.8S. In addition, important notes about this release are also included.

This chapter contains the following sections:

- [New and Changed Information, page 135](#)
- [Important Notes, page 147](#)

New and Changed Information

The following sections list the new hardware and software features that are supported by the Cisco ASR 1000 Series Routers for Cisco IOS XE Release 3.8S:

- [New Hardware Features in Cisco ASR 1000 Series Aggregation Services Routers Release 3.8S, page 135](#)
- [New Software Features in Cisco ASR 1000 Series Aggregation Services Routers Release 3.8S, page 136](#)

New Hardware Features in Cisco ASR 1000 Series Aggregation Services Routers Release 3.8S

The following are the new hardware features introduced in Cisco ASR 1000 Series Aggregation Services Routers Release 3.8S.



8 port clear channel T3/E3 SPA - SPA-8XT3/E3

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/interfaces_modules/shared_port_adapters/install_upgrade/ASR1000/asr_sip_spa_hw.html

New Software Features in Cisco ASR 1000 Series Aggregation Services Routers Release 3.8S

The following are the new software features introduced in Cisco ASR 1000 Series Aggregation Services Routers Release 3.8S.

8-Port Clear Channel T3/E3 SPA - SPA-8XT3/E3

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/interfaces_modules/shared_port_adapters/configuration/ASR1000/ASRspasw.html

Add Path Support in EIGRP

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/iproute_eigrp/configuration/xe-3s/ire-add-path.html

Ambiguous VLAN Support for IP Sessions over ISG (Limited Feature Support)

For detailed information, see the following Cisco documents:

<http://www.cisco.com/en/US/docs/ios-xml/ios/isg/configuration/xe-3s/isg-ambig-vlan.html>

ASR1K-SIP40 ISSU MDR Support

For detailed information, see the following Cisco document:

<http://www.cisco.com/en/US/docs/routers/asr1000/configuration/guide/chassis/issu.html>

AVC Limited Availability



Note

The AVC solution is currently in limited availability (LA) to control customer adoption, gain more visibility about technical issues, and improve general usability for Cisco Prime Infrastructure throughout the LA period. To ensure the smoothest possible implementation, please contact the AVC support team at the following address as you plan your deployment: ask-AVC-external@external.cisco.com.

BFD Dampening

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/iproute_bfd/configuration/xe-3s/irb-bfd-damp.html

BGP—Multicast VPN BGP Dampening

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/iproute_bgp/configuration/xe-3s/asr1000/irg-mvpn-damp.html

BGP—Multiple Cluster IDs

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/iproute_bgp/configuration/xe-3s/irg-multicluster-id.html

BGP—VPN Distinguisher Attribute

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/iproute_bgp/configuration/xe-3s/irg-vpn-distinguisher.html

Call Escalation from Voice to Video

For detailed information, see the following Cisco document:

<http://www.cisco.com/en/US/docs/ios/voice/cube/configuration/guide/vb-gw-sipsip.html>

Cisco Data Collection Manager

For detailed information, see the following Cisco documents:

<http://www.cisco.com/en/US/docs/ios-xml/ios/bsdcm/configuration/15-mt/bsdcm-15-mt-book.html>

<http://www.cisco.com/en/US/docs/ios-xml/ios/bsdcm/configuration/15-mt/nm-bs-dcm.html>

Classification Enhancements for IOS-XE3.8

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/qos_nbar/prot_lib/config_library/xe38/configuration/nbar-prot-lib38.html

Configuring ITU-T Y.1731 Fault Management Functions

For detailed information, see the following Cisco documents:

<http://www.cisco.com/en/US/docs/ios-xml/ios/cether/configuration/xe-3s/asr1000/ce-cfm-y1731-ieee.html>

<http://www.cisco.com/en/US/docs/ios-xml/ios/cether/configuration/xe-3s/ce-cfm-y1731-ieee.html>

Diffserv MIB

For detailed information, see the following Cisco document:

<http://www.cisco.com/en/US/docs/ios-xml/ios/qos-dfsrv/configuration/xe-3s/asr1000/qos-dfsrv-xe-3s-asr1000-book.html>

Embedded Packet Capture (EPC)

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/epc/command/monitor_capture_through_show_monitor_capture.html

Enable Visualization of Application Usage

For detailed information, see the following Cisco document:

<http://www.cisco.com/en/US/docs/ios-xml/ios/AVC/configuration/xe-3s/AVC-xe-3s-book.html>

Enable Visualization of Service Path

For detailed information, see the following Cisco document:

<http://www.cisco.com/en/US/docs/ios-xml/ios/AVC/configuration/xe-3s/cfg-AVC2-xe.html>

E-OAM-CFM CCM Hardware Offload

For detailed information, see the following Cisco document:

<http://www.cisco.com/en/US/docs/ios-xml/ios/cether/command/ce-cr-book.html>

Ethernet Local Management Interface (LMI) at Provider Edge (PE)

For detailed information, see the following Cisco document:

<http://www.cisco.com/en/US/docs/ios-xml/ios/cether/configuration/xe-3s/ce-elmi-pe.html>

Flexible NetFlow—Egress VRF Support

For detailed information, see the following Cisco document:

<http://www.cisco.com/en/US/docs/ios-xml/ios/fnetflow/configuration/xe-3s/cust-fnflow-rec-mon-xe.html>

iWAG – Intelligent Wireless Access Gateway

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/routers/asr1000/configuration/guide/chassis/iwag_asr1k.html

Excalibur Reverse L2GP

For detailed information, see the following Cisco documents:

http://www.cisco.com/en/US/docs/routers/asr1000/configuration/guide/chassis/mps_ps9343_TSD_Products_Configuration_Guide_Chapter.html

GDOI MIB Support for GET VPN

For detailed information, see the following Cisco documents:

http://www.cisco.com/en/US/docs/ios-xml/ios/sec_conn_getvpn/configuration/xe-3s/asr1000/sec-get-vpn-gdoi-mib-support.html

http://www.cisco.com/en/US/docs/ios-xml/ios/sec_conn_getvpn/configuration/xe-3s/sec-get-vpn-gdoi-mib-support.html

GETVPN GM Removal and Policy Trigger

For detailed information, see the following Cisco documents:

http://www.cisco.com/en/US/docs/ios-xml/ios/sec_conn_getvpn/configuration/xe-3s/asr1000/sec-get-vpn-gm-removal-and-policy-trigger.html

http://www.cisco.com/en/US/docs/ios-xml/ios/sec_conn_getvpn/configuration/xe-3s/sec-get-vpn-gm-removal-and-policy-trigger.html

GETVPN Troubleshooting

For detailed information, see the following Cisco documents:

http://www.cisco.com/en/US/docs/ios-xml/ios/sec_conn_getvpn/configuration/xe-3s/asr1000/sec-get-vpn.html

http://www.cisco.com/en/US/docs/ios-xml/ios/sec_conn_getvpn/configuration/xe-3s/sec-get-vpn.html

Graceful Shutdown Support for OSPFv3

For detailed information, see the following Cisco documents:

http://www.cisco.com/en/US/docs/ios-xml/ios/iproute_ospf/configuration/15-s/iro-ospfv3-gshutdown.html

http://www.cisco.com/en/US/docs/ios-xml/ios/iproute_ospf/configuration/xe-3s/asr1000/ip6-route-ospfv3-gr-rest-xe.html

http://www.cisco.com/en/US/docs/ios-xml/ios/iproute_ospf/configuration/xe-3s/iro-ospfv3-gshutdown.html

3GPP Release 7 & 8 Support for GPRS Tunneling Protocol AIC

This feature provides support for the GPRS Tunneling Protocol (GTP) application inspection and control (AIC) parser upgrade according to 3rd Generation Partnership Project (3GPP) Technical Specification (TS) 29.060 release 7 and 8. All the configurations and restrictions that apply to the GTP AIC and Gateway General packet radio service (GPRS) Support Node (GGSN) pooling specifications also apply to this feature.

HSRP: Global IPv6 Address

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/ipapp_fhrp/configuration/15-s/ip6-fhrp-hsrp.html

H-VPLS N-PE Redundancy for MPLS Access

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/mp_l2_vpns/configuration/xe-3s/mp-hvpls-npe-red-mpls-access.html

H-VPLS N-PE Redundancy for QinQ Access

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/mp_l2_vpns/configuration/xe-3s/mp-hvpls-npe-red.html

IEEE 802.1ab LLDP (Link Layer Discovery Protocol)

For detailed information, see the following Cisco documents:

<http://www.cisco.com/en/US/docs/ios-xml/ios/cether/configuration/xe-3s/asr1000/ce-lldp-multivend.html>

<http://www.cisco.com/en/US/docs/ios-xml/ios/cether/configuration/xe-3s/ce-lldp-multivend.html>

IKEv1 Hardening

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios/sec_secure_connectivity/configuration/guide/sec_call_addmsn_ike.html

IKEv2 Remote Access Hardware Client

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/sec_conn_ike2vpn/configuration/xe-3s/sec-cfg-flex-clnt.html

Inter-Chassis HA Support in IPV6 ZBFW

For detailed information, see the following Cisco documents:

http://www.cisco.com/en/US/docs/ios-xml/ios/sec_data_zbf/configuration/xe-3s/asr1000/sec-data-ha-ipv6-zbf.html

http://www.cisco.com/en/US/docs/ios-xml/ios/sec_data_zbf/configuration/xe-3s/sec-data-ha-ipv6-zbf.html

IP Unnumbered Ethernet Polling Support

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/ipaddr_ipv4/configuration/xe-3s/IP-unnumbered-Ethernet.html

IPSLA Multicast Support

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/ipsla/configuration/15-s/sla_mcast_suppt.html

IPv6 MVPN with MLDP

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/ipmulti_lsm/configuration/xe-3s/asr1000/imc_mldp-based_mvpn.html

IPv6 Remote Access for IPsec VPN

For detailed information, see the following Cisco document:

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/sec_conn_ike2vpn/configuration/xe-3s/asr1000/sec-flex-vpn-xe-3s-asr1000-book/sec-cfg-flex-clnt.html

IPv6 Transport for DMVPN

For detailed information, see the following Cisco document:

<http://www.cisco.com/en/US/docs/ios/ipv6/configuration/guide/ip6-dmvpn.html>

IPv6 ZBFW B2B HA Support

For detailed information, see the following Cisco documents:

http://www.cisco.com/en/US/docs/ios-xml/ios/sec_data_zbf/configuration/xe-3s/asr1000/sec-b2b-ha-ipv6.html

ISDN/Dialer Access-Link Support for Broadband Aggregation

For detailed information, see the following Cisco documents:

<http://www.cisco.com/en/US/docs/ios-xml/ios/vpdn/configuration/xe-3s/asr1000/vpd-isdn-access-bba.html>

ISIS No Hello Padding Always

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/iproute_isis/command/irs-cr-book.html

ISSU—E-LMI Support

For detailed information, see the following Cisco documents:

<http://www.cisco.com/en/US/docs/ios-xml/ios/cether/configuration/xe-3s/asr1000/ce-elmi-pe.html>

<http://www.cisco.com/en/US/docs/ios-xml/ios/cether/configuration/xe-3s/ce-elmi-pe.html>

L2VPN VPLS Inter-AS, Option B

For detailed information, see the following Cisco documents:

www.cisco.com/en/US/docs/ios-xml/ios/mp_l2_vpns/configuration/xe-3s/asr1000/mp-inter-as-option-b.html

Label Switched Multicast (LSM) Multicast Label Distribution Protocol (mLDP) based Multicast VPN (mVPN) Support

For detailed information, see the following Cisco documents:

<http://www.cisco.com/en/US/docs/routers/asr1000/configuration/guide/chassis/lsmmldp.html>

LISP Delegate Database Tree (DDT)

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/iproute_lisp/configuration/xe-3s/irl-ddt.html

LISP Host Mobility Across Subnet

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/iproute_lisp/configuration/xe-3s/irl-host-mob.html

LISP-SEC, LISP Control Plane Security

The LISP Security (LISP-SEC) feature enables a set of security mechanisms that provide origin authentication, integrity, and anti-replay protection for map-request/map-reply mapping resolution exchanges.

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/iproute_lisp/command/ip-lisp-cr-book.html

Mapping of Address and Port Using Translation (MAP-T)

For detailed information, see the following Cisco documents:

http://www.cisco.com/en/US/docs/ios-xml/ios/ipaddr_nat/configuration/xe-3s/asr1000/ip-nat-divi-v4v6.html

http://www.cisco.com/en/US/docs/ios-xml/ios/ipaddr_nat/configuration/xe-3s/ip-nat-divi-v4v6.html

MGRE Tunnel Support over IPv6

For detailed information, see the following Cisco documents:

<http://www.cisco.com/en/US/docs/ios/ipv6/configuration/guide/ip6-dmvpn.html>

<http://www.cisco.com/en/US/docs/ios/ipv6/configuration/guide/ip6-tunnel.html>

MLDP-Based MVPN

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/ipmulti_lsm/configuration/xe-3s/asr1000/imc_mldp-based_mvpn.html

MLDP In-Band Signaling / Transit Mode

For detailed information, see the following Cisco documents:

http://www.cisco.com/en/US/docs/ios-xml/ios/ipmulti_lsm/configuration/xe-3s/asr1000/imc-inband.html

MPLS Virtual Private Networks

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/mp_l3_vpns/configuration/xe-3s/mp-cfg-layer3-vpn.html

MVPNv6 Extranet

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/ipmulti_mvnpn/configuration/xe-3s/imc_mc_vpn_extranet.html

NETCONF XML PI

For detailed information, see the following Cisco document:

<http://www.cisco.com/en/US/docs/ios-xml/ios/cns/configuration/xe-3s/asr1000/cns-netconf.html>

<http://www.cisco.com/en/US/docs/ios-xml/ios/cns/configuration/xe-3s/cns-netconf.html>

Network-Based Recording Using Cisco UBE

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/voice/cube_proto/configuration/xe-3s/voi-ntwk-based.html

NSF/SSO—E-LMI Support

For detailed information, see the following Cisco documents:

<http://www.cisco.com/en/US/docs/ios-xml/ios/cether/configuration/xe-3s/asr1000/ce-elmi-pe.html>

<http://www.cisco.com/en/US/docs/ios-xml/ios/cether/configuration/xe-3s/ce-elmi-pe.html>

OSPFv3 ABR Type 3 LSA Filtering

For detailed information, see the following Cisco documents:

http://www.cisco.com/en/US/docs/ios-xml/ios/iproute_ospf/configuration/xe-3s/asr1000/iro-afsupport-v3.html

http://www.cisco.com/en/US/docs/ios-xml/ios/iproute_ospf/configuration/xe-3s/iro-afsupport-v3.html

Per PW Layer 2 Service Policy in VFI

For detailed information, see the following Cisco document:

<http://www.cisco.com/en/US/partner/docs/ios-xml/ios/mps/command/mp-s3.html>

Per PW QoS in VFI

For detailed information, see the following Cisco documents:

http://www.cisco.com/en/US/docs/ios-xml/ios/mp_l2_vpns/configuration/xe-3s/mp-l2vpn-qos-pw-vfi.html

PfR Bandwidth Visibility Distribution for xDSL Access

For detailed information, see the following Cisco document:

<http://www.cisco.com/en/US/docs/ios-xml/ios/pfr/configuration/xe-3s/asr1000/pfr-band-vis.html>

PfR Scaling Improvement for Application Traffic Class (TC)

For detailed information, see the following Cisco document:

<http://www.cisco.com/en/US/docs/ios-xml/ios/pfr/command/pfr-cr-book.html>

PPPoGEC—Per Session QoS [Include Model F Support]

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/qos_mqc/configuration/xe-3s/asr1000/qos-pppgec.html

Prefix Suppression Support for OSPFv3

For detailed information, see the following Cisco documents:

http://www.cisco.com/en/US/docs/ios-xml/ios/iproute_ospf/configuration/xe-3s/asr1000/iro-pref-suppress-v3.html

SIP ALG Hardening for NAT and Firewall

For detailed information, see the following Cisco documents:

http://www.cisco.com/en/US/partner/docs/ios-xml/ios/ipaddr_nat/configuration/xe-3s/iadnat-fw-sip-alg-hardng.html

http://www.cisco.com/en/US/partner/docs/ios-xml/ios/sec_data_zbf/configuration/xe-3s/iadnat-fw-sip-alg-hardng.html

Suite-B Support in IOS SW Crypto

For detailed information, see the following Cisco document:

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/sec_conn_pki/configuration/xe-3s/asr1000/sec-pki-xe-3s-asr1000-book/sec-cert-enroll-pki.html

Support for Algorithms in the Suite B Specification for IPSec by the On-Board Crypto Engine in Cisco ASR 1000 Series Aggregation Services Routers

The IPSec algorithms required by Suite B are now supported by the hardware crypto engine on the Cisco ASR 1000 Series Aggregation Services Routers that have embedded hardware-accelerated VPN encryption.

Suite B requirements comprise four user interface suites of cryptographic algorithms for use with IKE and IPsec, which are described in RFC 6379 and RFC 6380 respectively. Each suite consists of an encryption algorithm, a digital signature algorithm, a key agreement algorithm, and a hash or message digest algorithm.

Suite B provides a comprehensive security enhancement for Cisco IPsec VPNs, and allows additional security for large-scale deployments. Suite B is the recommended solution for organizations requiring advanced encryption security for the wide-area network (WAN) between remote sites.

For detailed information, see the following Cisco documents:

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/sec_conn_vpnips/configuration/xe-3s/asr1000/sec-se-c-for-vpns-w-ipsec-xe-3s-asr1000-book/sec-cfg-vpn-ipsec.html

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/sec_conn_pki/configuration/xe-3s/asr1000/sec-pki-xe-3s-asr1000-book.html

http://www.cisco.com/c/en/us/td/docs/ios-xml/ios/sec_conn_ike2vpn/configuration/xe-3s/asr1000/sec-flex-vpn-xe-3s-asr1000-book/sec-cfg-ikev2-flex.html

Support for Negotiation of an Audio Codec from a List of Codecs on Each Leg of a SIP-SIP Call on the Cisco Unified Border Element

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/voice/cube_proto/configuration/xe-3s/voi-negt-aud-code.html

TCP - Configurable Keepalive Timer

For detailed information, see the following Cisco document:

<http://www.cisco.com/en/US/docs/ios-xml/ios/ipapp/configuration/15-2mt/iap-tcp.html>

TCP Reset Segment Control

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/sec_data_zbf/configuration/xe-3s/tcp-rst-seg-con.html

Unicast Reverse Path Forwarding Loose Mode

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/sec_data_urpf/configuration/xe-3s/sec-unicast-rpf-loose-mode.html

VPLS BGP Signaling

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/iproute_bgp/configuration/xe-3s/asr1000/irg-vpls-bgp-sig.html

VPLS MAC Limit Enhancement

For detailed information, see the following Cisco document:

<http://www.cisco.com/en/US/docs/ios-xml/ios/cether/command/ce-cr-book.html>

VRRPv3 Protocol Support

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/ios-xml/ios/ipapp_fhrp/configuration/15-1sy/fhrp-vrrpv3.html

WebEx SPA

For detailed information, see the following Cisco document:

http://www.cisco.com/en/US/docs/interfaces_modules/shared_port_adapters/configuration/ASR1000/ASRovwma.html

Y.1731 Performance Monitoring

For detailed information, see the following Cisco documents:

<http://www.cisco.com/en/US/docs/ios-xml/ios/cether/configuration/xe-3s/asr1000/ce-y1731-perfmon.html>

<http://www.cisco.com/en/US/docs/ios-xml/ios/cether/configuration/xe-3s/ce-y1731-perfmon.html>

Important Notes

The following sections contain important notes about Cisco ASR 1000 Series Aggregation Services Routers Release 3.8S.

End-of-Sale and End-of-Life of the Cisco Traditional NetFlow Feature

Cisco announces the end-of-sale and end-of-life of the Cisco Traditional NetFlow (TNF) Feature on the Cisco ASR1000 platform. Cisco will not have any future development, CLI support, TAC support, and documentation pertaining to the Cisco TNF feature beyond Cisco IOS XE Software Release 3.10.

Customers with the Cisco TNF feature on the Cisco ASR1000 platform are encouraged to migrate to the Cisco Flexible NetFlow (FNF) feature on the Cisco ASR1000 platform.

For details on transition to Cisco FNF, see the *Migrating from Traditional to Flexible NetFlow* white paper:

http://www.cisco.com/en/US/prod/collateral/iosswrel/ps6537/ps6555/ps6601/ps6965/white_paper_c11-545581.html

Deferrals

Cisco IOS software images are subject to deferral. We recommend that you view the deferral notices at the following location to determine whether your software release is affected:

http://www.cisco.com/en/US/products/products_security_advisories_listing.html

Field Notices and Bulletins

- Field Notices—We recommend that you view the field notices for Release 3.8S to determine whether your software or hardware platforms are affected. You can find the field notices at the following location:

http://www.cisco.com/en/US/support/tsd_products_field_notice_summary.html

- Bulletins—You can find bulletins at the following location:

http://www.cisco.com/en/US/products/sw/iosswrel/ps5012/prod_literature.html

Important Notes About Cisco ASR 1000 Series Aggregation Services Routers Release 3.8S

There are no important notes specific to Cisco ASR 1000 Series Aggregation Services Routers Release 3.8S.

